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ABSTRACT

The New Jersey Occupational Information Coordinating Committee's statistics for average annual predicted job openings for 1984-87 are presented, along with the New Jersey Division of Vocational Education's enrollment statistics for the same period. The number of males and females enrolled in secondary programs for each of the 29 job categories studied for these 3 years is also presented. From this information, comparisons are made of male/female enrollment and changes in nontraditional enrollment. (For this report, a nontraditional program for women is defined as one in which most of the participants are men and a nontraditional program for men is the opposite.) Further comparisons are made of the total numbers of people trained at the secondary, postsecondary, and proprietary school levels and the predicted annual job openings. Job categories included are automotive body repair, automotive mechanic, bank clerk, bookkeeping and accounting, building maintenance, cabinetmaking and furniture making, carpentry, child care worker, clothing manufacturing, commercial art, computer operator, computer programming, cosmetology, data entry keyer, drafting and design, electrical and electronic technology, electrical equipment repair, electrician, food marketing, food service, graphic arts, health aide, heating and cooling mechanic, licensed practical nurse, machinist, office occupations, plumbing, sales and purchasing, and welding. No significant changes are reported in nontraditional enrollments, although female enrollment is increasing more rapidly than male enrollment overall. (KC)

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ED326635

STATUS REPORT ON FEMALE ENROLLMENT IN NEW JERSEY VOCATIONAL EDUCATION 1988

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TABLE OF CONTENTS

Acknowledgments v
Disclaimer vii
Introduction ix
Women in the Labor Force xi
Presentation of Data 1
AUTOMOTIVE BODY REPAIR 3
AUTOMOTIVE MECHANIC 4
BANK CLERK 5
BOOKKEEPING AND ACCOUNTING 6
BUILDING MAINTENANCE 7
CABINETMAKING AND FURNITURE MAKING 8
CARPENTRY 9
CHILD CARE WORKER 10
CLOTHING MANUFACTURING 11
COMMERCIAL ART 12
COMPUTER OPERATOR 13
COMPUTER PROGRAMMING 14
COSMETOLOGY 15
DATA ENTRY KEYER 16
DRAFTING AND DESIGN 17
ELECTRICAL AND ELECTRONIC TECHNOLOGY 18
ELECTRICAL EQUIPMENT REPAIR 19
ELECTRICIAN 20
FOOD MARKETING 21
FOOD SERVICE 22
GRAPHIC ARTS 23
HEALTH AIDE 24
HEATING AND COOLING MECHANICS 25
LICENSED PRACTICAL NURSE 26
MACHINIST 27
OFFICE OCCUPATIONS 28
PLUMBING 29
SALES AND PURCHASING, GENERAL 30
WELDING 31
Summary 32

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Joan D. Bernstein, Project Director
Joanne Ferreri Coté, Principal Investigator

Disclaimer

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Introduction

The New Jersey Department of Education is committed to ensuring equal access for all students to vocational education programs. Vocational educators are challenged to remove the barriers of sex bias and stereotyping which have prevented female participation in vocational opportunities. There have been changes toward elimination of sex role stereotyping as evidenced by New Jersey 's vocational education enrollment figures. This report will indicate the areas where change is evident.

The following report presents New Jersey Occupational Information Coordinating Committee (NJOICC) average annual predicted job opening statistics for 1984-87 and New Jersey Division of Vocational Education enrollment statistics for 1984-87. The number of males and females enrolled in secondary programs for each job category for these three years is presented. Gender enrollment figures were available only from secondary institutions through the New Jersey Department of Education, Division of Vocational Education. From this information comparisons are made of male/female enrollment and changes in nontraditional enrollment. For this report a nontraditional program for women is defined as one in which most of the participants are men and a nontraditional program for men is one in which most of the participants are women. Further comparisons are made of the total number of people trained at the secondary, post secondary and proprietary school levels and the predicted annual job openings.

Job Outlook ratings were determined by using the 1986-87 annual occupational supply/demand analysis organized by Occupational Information System (OIS). This information compares the expected number of openings in a group of occupational job titles to the anticipated supply coming from a group of occupational job training programs. The OIS supply/demand data is ranked from highest to lowest in a ratio of program completers to average annual job openings. Ranking these supply/demand ratios gives some indication of potential employment opportunities.

An update of the report is scheduled to be published in January 1989.

Women in the Labor Force

Recent statistics show that women's participation in the labor force has been steadily increasing. United States Department of Labor statistics reveal that over 52% of the female adult population is in the work force. Working for "pin money" is a myth that may persist, but women work for the same reasons that men do: economic necessity, support for themselves and their families, and financial independence.

Unfortunately, wage disparity between male and female workers still significantly favors men. Women earn only 64% of men's wages for performing identical tasks. While sex discrimination in hiring has declined, most women continue to enter stereotypical "female occupations," positions which are often low status, low paying and lacking in advancement opportunities.

According to the 1980 census, 51% of women 16 years of age and older were in the labor force in New Jersey. The number of women in the labor force with at least one child under the age of 18 years has increased from 1970 to 1980 in New Jersey by about the same percentage. This is an important statistic for those in the social service field for it is an indication of the increased need for child care and day care centers. In fact, of the total 526,000-person change in the size of the labor force in the last decade, 387,000 or 73% were female.

The majority of women in the labor force are married and have children. Changing family patterns of female-headed households, the increase in divorce and marriage at a later age contribute to the numbers of women seeking employment. Most women do not have the financial resources or skills to support themselves and their children. The traditional homemaker, who has worked at home and cared for her family, but now is entering or re-entering the labor force after many years, has the greatest difficulty securing appropriate work.

Despite some movement into professional and managerial jobs, most employed women maintaining families have tended to remain in the generally low paying or less skilled jobs. Like most employed women, the largest proportion of those maintaining families are in administrative support jobs, including clerical work. Secretarial work is still the largest occupational area for women, just as it was at the beginning of the decade.

With vocational training, a woman is more capable of obtaining employment that will lead to financial security and economic independence. The vocational curriculum can provide equity of educational opportunity for women who need to be trained in nontraditional occupational areas in order to ensure upward mobility.

Presentation of Data

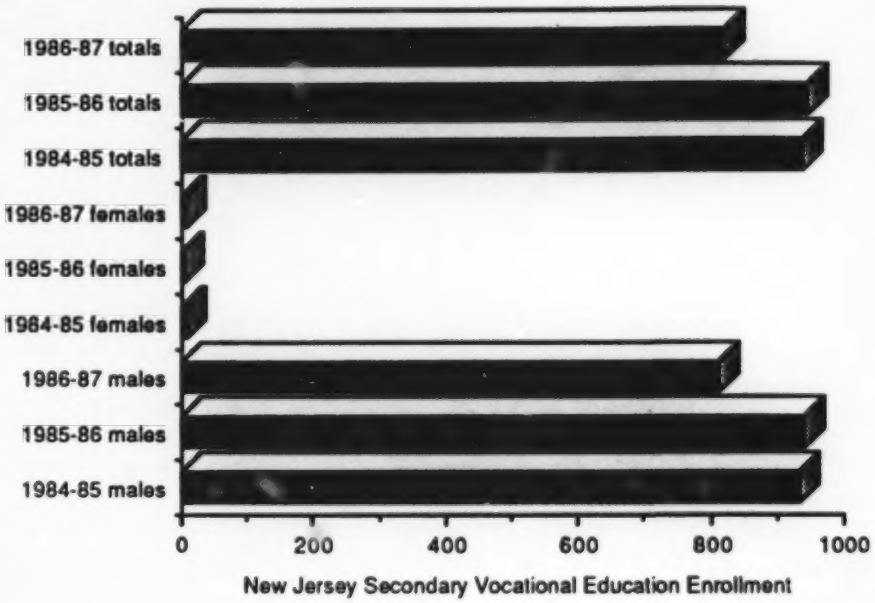
This report is an analysis of New Jersey Vocational Education programs illustrating male/female student enrollment figures from 1984-87 and New Jersey Occupational Information Coordinating Committee (NJOICC) statistics on supply and demand for 1984-87.

Each graph represents a specific training category identified by the NJOICC as one of the top 20 job categories for which most secondary students are being trained and/or for the highest number of predicted job openings in New Jersey. The graphs presented in this section of the report indicate male/female enrollment for the past three years according to the Division of Vocational Education. Based on this preliminary review of the data, there appears to be little change in the participation of females in training programs for traditionally male occupations. There is no increase in the enrollment of males in training programs that are historically female-dominated.

In the next section, New Jersey Vocational Education enrollment figures are compared with NJOICC statistics on job openings for 1984-87 to determine the extent to which the enrollment trend is keeping pace with predicted job availability.

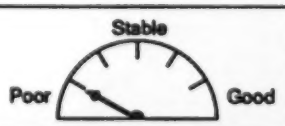
AUTOMOTIVE BODY REPAIR

Automotive Body Repair programs prepare individuals to repair automobile body parts using automotive hand and power tools. Frame straightening, engine and transmission removal and replacement techniques are also taught.



The secondary enrollment in Vocational Education Automotive Body Repair programs remained stable for males from 1984-85 to 1985-86 and declined from 1985-86 to 1986-87. The female enrollment remained stable from 1984-85 through 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in this category. The consistently higher number of males enrolled in Automotive Body Repair programs over the past three years on the secondary level may be related to the tradition of employing men in this occupation.

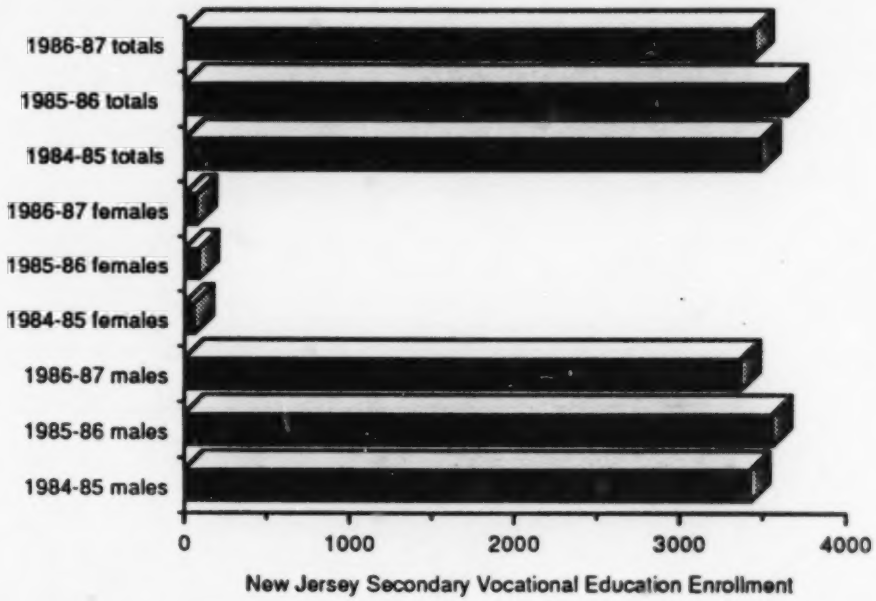
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show approximately 290 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 723 Automotive Body Repair trainee completers for the 1986-87 program year. The occupational positions included in this category are: automotive body and related repairers, and transportation equipment painters. Predicted job openings fall short of the number of current trainee completers for these occupations.

AUTOMOTIVE MECHANIC

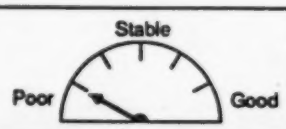
Automotive Mechanic programs prepare individuals to repair and overhaul automobiles, buses, trucks and other automotive vehicles. The Vocational Education programs included in this category are: agriculture mechanics, automotive technology, general vehicle mechanics, automotive mechanics and diesel engine mechanics.



New Jersey Secondary Vocational Education Enrollment

The secondary enrollment in Vocational Education Automotive Mechanic programs increased for males from 1984-85 to 1985-86 and decreased from 1985-86 to 1986-87. The female enrollment increased slightly from 1984-85 to 1985-86 and remained stable from 1985-86 to 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in this category.

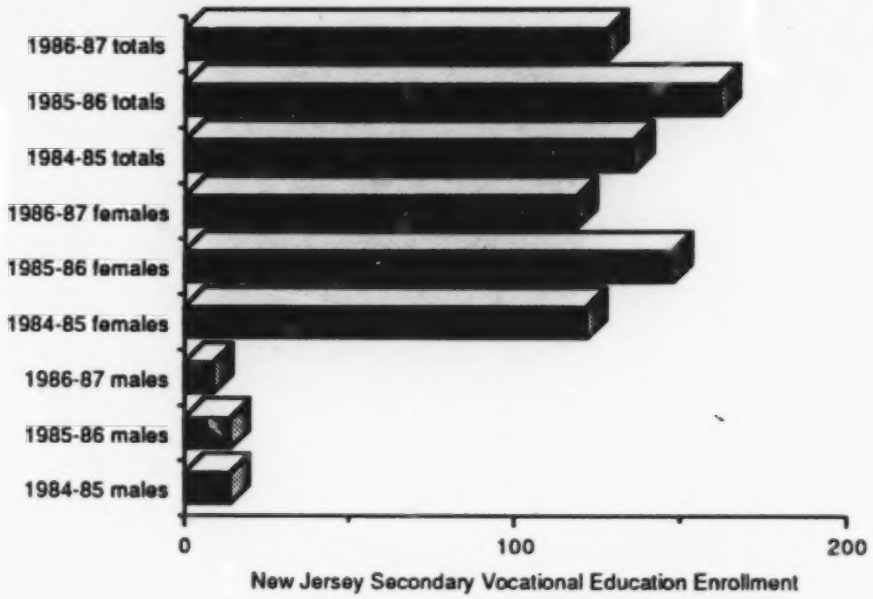
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 1,590 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 3,093 Automotive Mechanic trainee completers for the 1986-87 program year. The occupational positions included are: automotive mechanics, bus and truck mechanics, diesel engine mechanics, farm equipment mechanics, electrical installers and repairers, and tire repairers and changers. Predicted job openings fall short of the number of current trainee completers for these occupations.

BANK CLERK

Bank Clerk programs prepare individuals to process deposits and withdrawals for checking and savings accounts, cash checks, sell savings bonds, accept payment for customer utility bills and handle certificates of deposit. The Vocational Education programs included in this category are: banking, credit collection clerk, teller and transit clerk.



New Jersey Secondary Vocational Education Enrollment

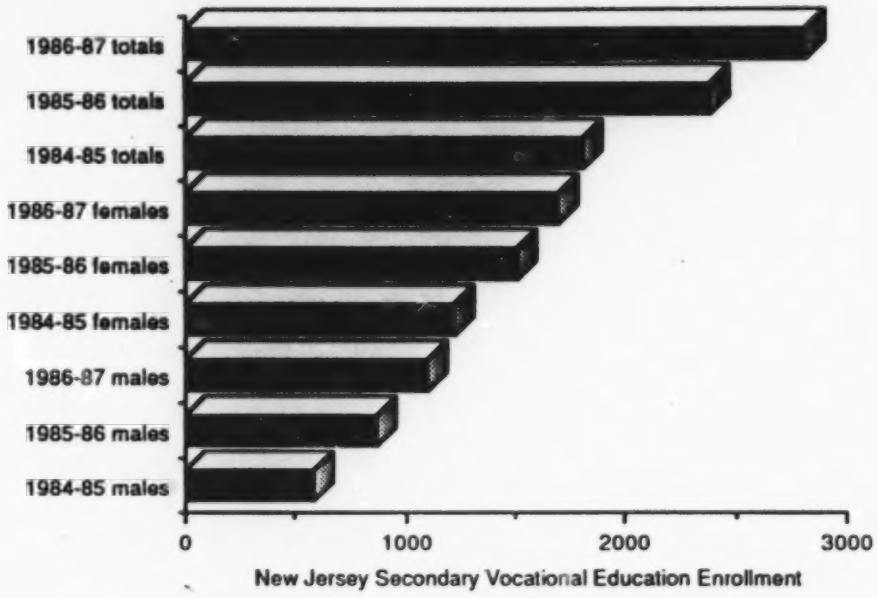
The secondary enrollment in Vocational Education Bank Clerk programs for males remained the same from 1984-85 to 1985-86 and increased for females for the same period. In 1986-87 enrollment declined for both groups. In each of the three years reviewed, female enrollment significantly outnumbered male enrollment in this category. The consistently higher number of females enrolled in Bank Clerk programs over the past three years on the secondary level may be related to the tradition of employing women in these occupations.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for the program year 1986-87 show that approximately 1,870 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 357 Bank Clerk trainee completers for the 1986-87 program year. The occupational positions included in this category are: tellers, new account clerks, transit clerks, loan interviewers, credit authorizers, credit checkers, loan/credit clerks and bill/account collectors. Predicted job openings exceed the number of current trainee completers for these positions.

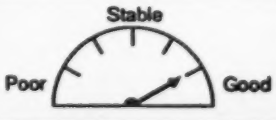
BOOKKEEPING AND ACCOUNTING

Bookkeeping and Accounting programs prepare individuals to maintain systematic numerical records of accounts and business transactions in journals, ledgers, or computer systems to reconcile complete financial records. The Vocational Education programs in this category include accounting, taxation, bookkeeping, computing, machine billing and loan clerk.



The secondary enrollment in Vocational Education Bookkeeping and Accounting programs increased for both males and females from 1984-85 to 1985-86 and from 1985-86 to 1986-87. In each of the three years reviewed, female enrollment outnumbered male enrollment in this category. The consistently higher number of females enrolled in the Bookkeeping and Accounting programs over the past three years on the secondary level may be related to the tradition of employing women in this occupation.

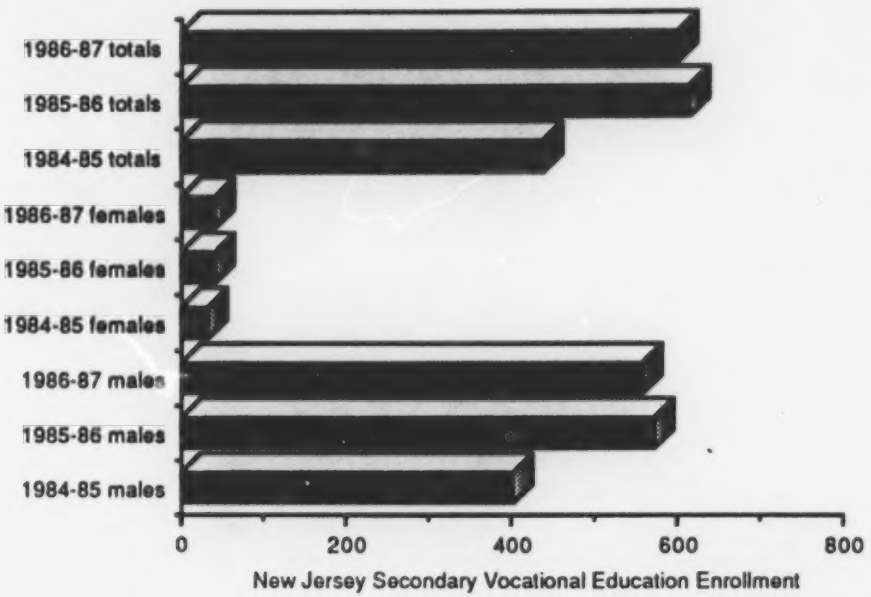
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings in 1986-87 show approximately 7,180 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 5,327 trainee completers for the 1986-87 program year. Predicted job openings exceed the number of current trainee completers for these occupations.

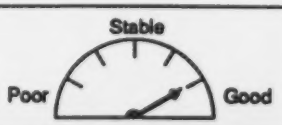
BUILDING MAINTENANCE

Building Maintenance programs prepare individuals to keep buildings and grounds in a clean and orderly condition, maintain equipment and utility systems and make structural repairs.



The secondary enrollment in Vocational Education Building Maintenance programs increased for males from 1984-85 to 1985-86 and decreased from 1985-86 to 1986-87, while enrollment increased for females from 1984-85 to 1985-86 and remained stable from 1985-86 to 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in this category. The consistently higher number of males enrolled in Building Maintenance programs over the past three years on the secondary level may be related to the tradition of employing men in this occupation.

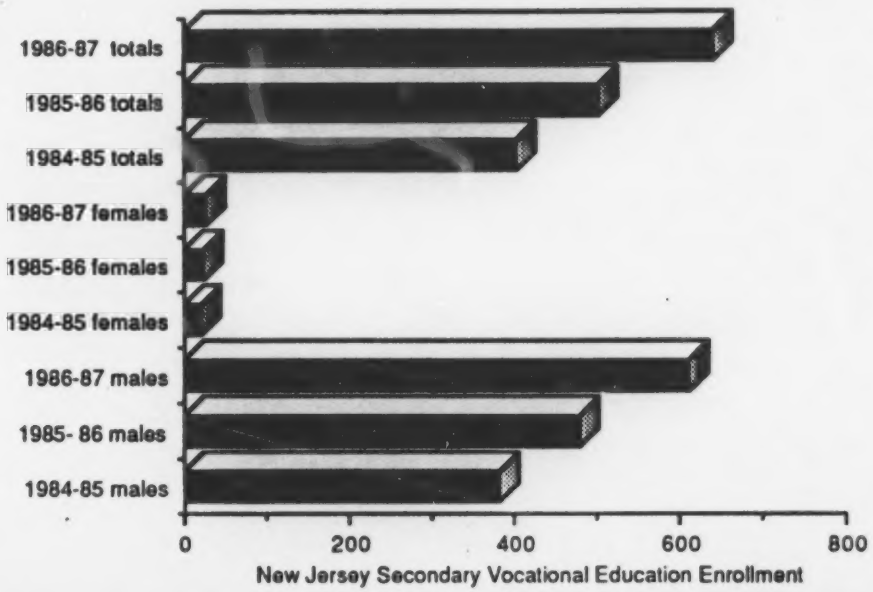
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 1,900 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 411 Building Maintenance trainee completers for the 1986-87 program year. The occupational positions included in this category are: general utility machinery repairers, mobile home repairers, boiler operators/tenders and stationary engineers. Predicted job openings exceed the number of current trainee completers for these occupations.

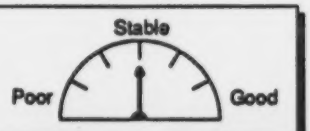
CABINETMAKING AND FURNITURE MAKING

Cabinetmaking and Furniture Making programs prepare individuals to operate a variety of woodworking machines and tools to fabricate and repair wooden fixtures, cabinets and high-grade furniture. The Vocational Education programs included in this category are: general woodworking, furniture making, millwork and cabinetmaking.



The secondary enrollment in Vocational Education Cabinetmaking and Furniture Making programs has increased steadily for males from 1984-85 to 1986-87. Female enrollment has slightly increased for the same period. In each of the three years reviewed, male enrollment has significantly outnumbered female enrollment in this category. The consistently higher number of males enrolled in Cabinetmaking and Furniture Making programs over the past three years on the secondary level may be related to the tradition of employing men in this occupation.

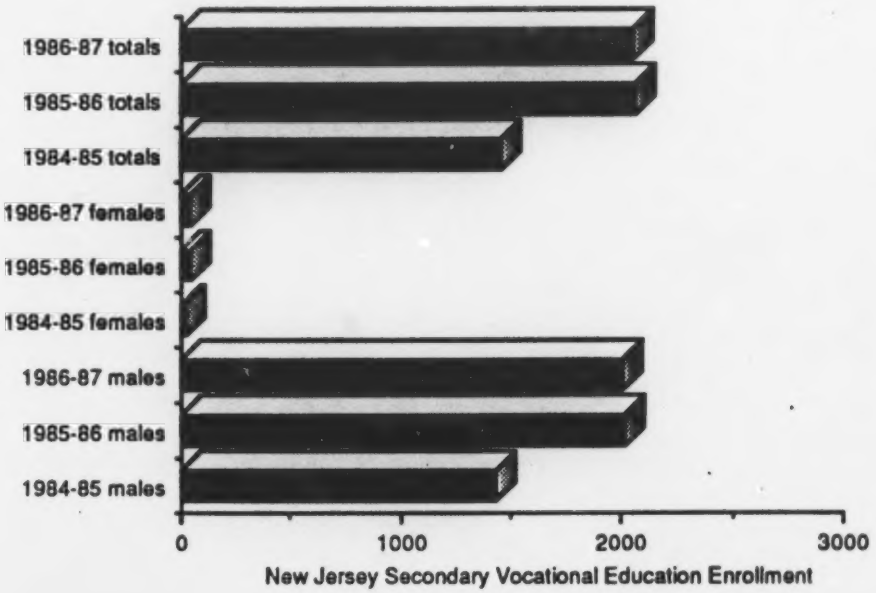
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 550 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 408 Cabinetmaking and Furniture Making trainee completers for the 1986-87 program year. The occupational positions included in this category are: wood pattern and model makers, wood machinists, cabinetmakers/bench carpenters, furniture finishers, and all other precision woodworkers, assemblers and fabricators. Predicted job openings exceed the number of current trainee completers for these positions.

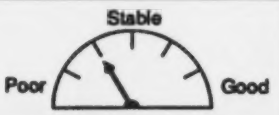
CARPENTRY

Carpentry programs prepare individuals to read blueprints, and construct, install and repair structures using materials such as wood, plastics, fiberglass and drywall.



The secondary enrollment in Vocational Education Carpentry programs increased for males from 1984-85 to 1985-86 and slightly decreased from 1985-86 to 1986-87. Female enrollment substantially increased from 1984-85 to 1985-86 but decreased from 1985-86 to 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in this category. The consistently higher number of males enrolled in Carpentry programs over the past three years on the secondary level may be related to the tradition of employing men in this occupation.

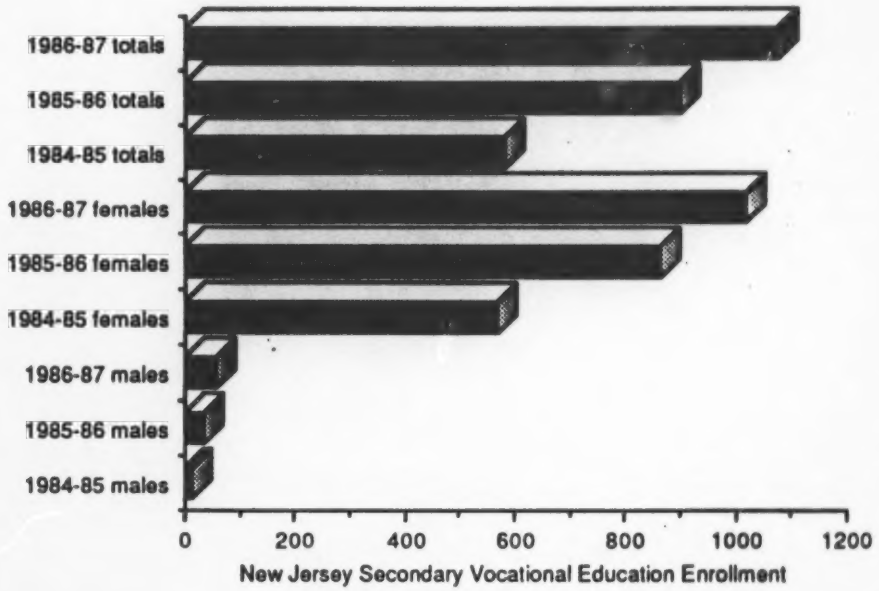
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 1,373 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, show a total of 1,594 Carpentry trainee completers for the 1986-87 program year. The occupational positions included are: carpenters and related helpers and ceiling tile installers. Predicted job openings fall short of the number of current trainee completers for these occupations.

CHILD CARE WORKER

Child Care Worker programs prepare individuals to assist teachers in programs designed to meet the physical, social, intellectual and emotional needs of young children. The Vocational Education programs included in this category are: general child care and guidance, child care aide, child care management, foster care/family care and therapeutic recreation aide.



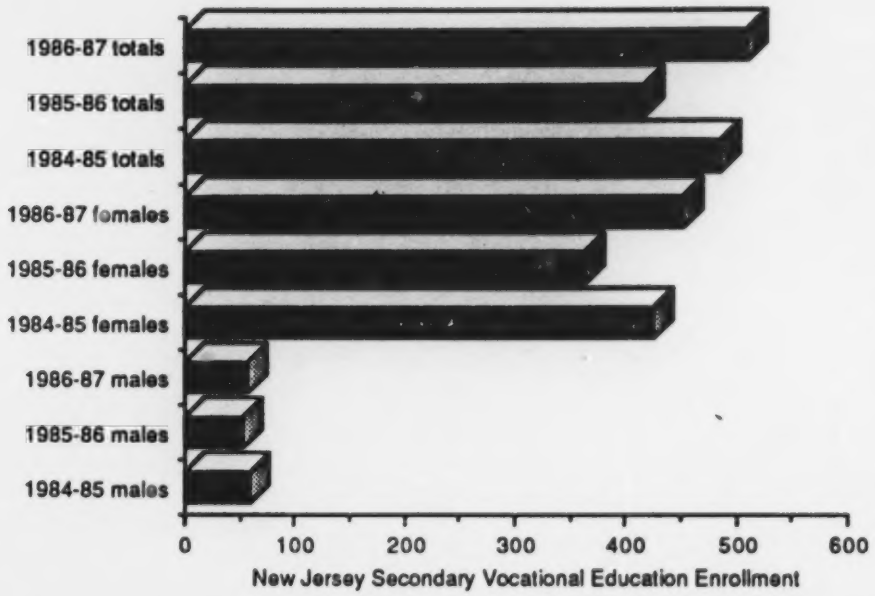
The secondary enrollment in Vocational Education Child Care Service programs increased for both males and females from 1984-85 to 1985-86 and from 1985-86 to 1986-87. In each of the three years reviewed, female enrollment significantly outnumbered male enrollment in this category. The consistently higher number of females enrolled in Child Care Worker programs over the past three years on the secondary level may be related to the tradition of employing women in these occupations.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 460 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 546 Child Care Worker trainee completers for the 1986-87 program year. Predicted job openings fall short of the number of current trainee completers for these occupations.

CLOTHING MANUFACTURING

Clothing Manufacturing programs prepare individuals to work in garment and apparel design, construction, tailoring, alteration and other aspects of the clothing industry. The Vocational Education programs in this category are: clothing, apparel and textiles and commercial garment construction.



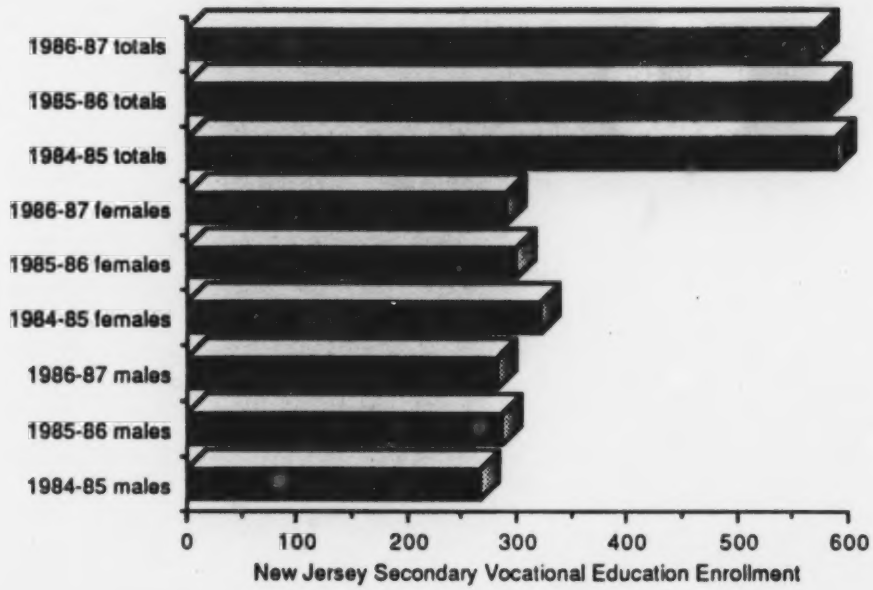
The secondary enrollment in Vocational Education Clothing Manufacturing programs decreased for females from 1984-85 to 1985-86 and increased from 1985-86 to 1986-87. Male enrollment remained stable from 1984-85 through 1986-87. In each of the three years reviewed, female enrollment significantly outnumbered male enrollment in this category. The consistently higher number of females enrolled in Clothing Manufacturing programs over the past three years on the secondary level may be related to the tradition of employing females in these occupations.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 1,877 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 411 Clothing Manufacturing trainee completers for the 1986-87 program year. Some occupational positions included in this category are: fabric pattern makers and layout workers; textile machine setters, set-up operators and tenders, and garment sewing machine operators. Predicted job openings exceed the number of current trainee completers for these occupations.

COMMERCIAL ART

Commercial Art programs prepare individuals to illustrate and design in pen/ink, charcoal and pastels and to use lettering, photography and printing techniques for commercial use. The Vocational Education programs included in this category are: photography, photo typesetting, computer graphics, photographic retouching and color separation.



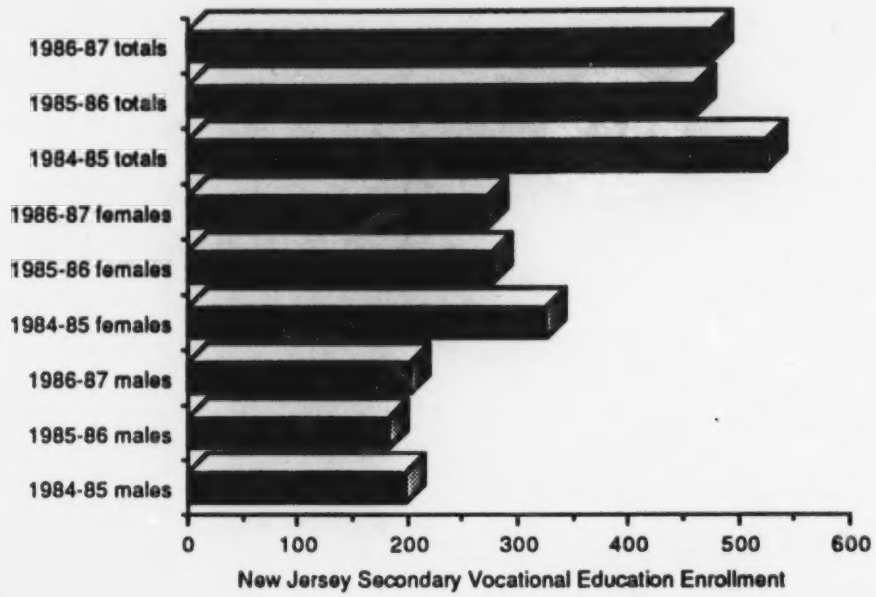
The secondary enrollment in Vocational Education Commercial Art programs decreased slightly for females from 1984-85 to 1985-86 and again from 1985-86 to 1986-87. The male enrollment increased slightly from 1984-85 to 1985-86 and decreased slightly from 1985-86 to 1986-87. In 1984-85 female enrollment significantly outnumbered male enrollment. In 1985-86 and 1986-87 though, in actual numbers, more females enrolled than males, the difference in male-female enrollment was negligible. This balanced enrollment in recent years of females and males in Commercial Art programs may be related to the diversity of positions now available in this occupation which may be equally attractive to both males and females.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 480 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 355 Commercial Art trainee completers for the 1986-87 program year. The occupational positions in this category include: artists, commercial artists, designers, detail design decorators and painters. Predicted job openings exceed the number of current trainee completers for these occupations.

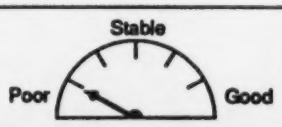
COMPUTER OPERATOR

Computer Operator programs prepare individuals to monitor and control the computer console, process data prepared by programmers, load the equipment tapes, disks and paper and prepare printouts for distribution. The Vocational Education programs in this category are: business computer and console operator, and business data peripheral equipment.



The secondary enrollment in Vocational Education Computer Operator programs steadily decreased for females for 1984-85 to 1986-87. The male enrollment decreased for 1984-85 to 1985-86 and increased for 1985-86 to 1986-87. In each of the three years reviewed, female enrollment outnumbered male enrollment in this category. Computer Operator positions are traditionally filled by women.

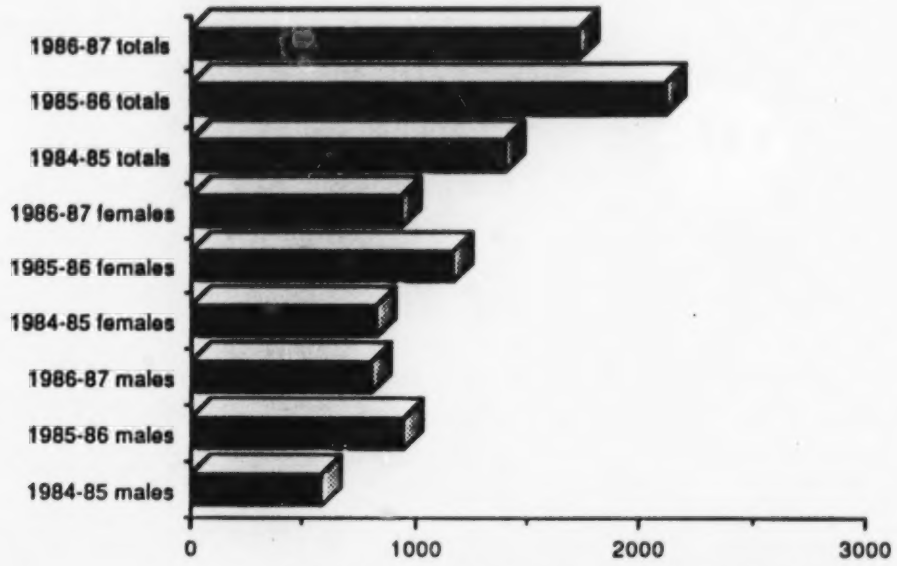
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 570 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 2,029 Computer Operator trainee completers for the 1986-87 program year. Predicted job openings fall short of the number of current trainee completers for these occupations.

COMPUTER PROGRAMMING

Computer Programming training prepares individuals to write the program the computer must follow to organize and process data to produce desired information. The Vocational Education programs included in this category are: business data processing, computer programming, data processing, and computer and information science.



New Jersey Secondary Vocational Education Enrollment

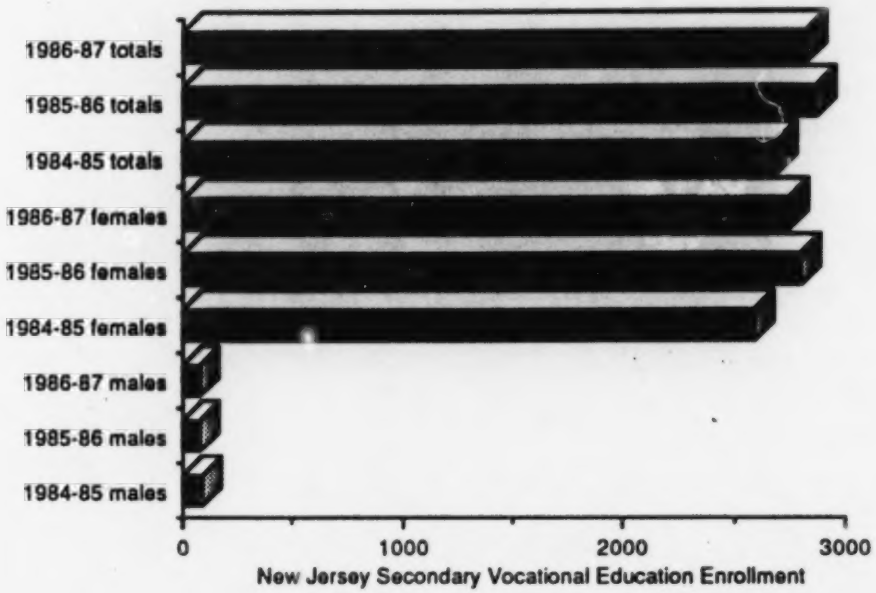
The secondary enrollment in Vocational Education Computer Programming increased significantly for both males and females from 1984-85 to 1985-86 and decreased for both groups from 1985-86 to 1986-87. In each of the three years reviewed, female enrollment outnumbered male enrollment in this category. The consistently higher number of females enrolled in Computer Programming programs over the past three years on the secondary level may be related to the tradition of employing women in this occupation.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 1,250 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 4,375 Computer Programming trainee completers for the 1986-87 program year. Predicted job openings fall significantly short of the number of current trainee completers for these occupations.

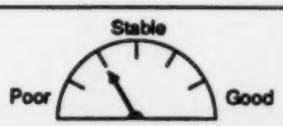
COSMETOLOGY

Cosmetology programs prepare individuals to perform tasks that improve the appearance of patrons, such as waving, cutting, styling and coloring hair, providing scalp and facial treatments, manicures, and other related services. The Vocational Education programs in this category are: general personal services, barbering, cosmetology and electrolysis.



The secondary enrollment in Vocational Education Cosmetology programs increased for females from 1984-85 to 1985-86 and decreased slightly from 1985-86 to 1986-87. The male enrollment slightly decreased from 1984-85 to 1985-86 and remained stable from 1985-86 to 1986-87. In each of the three years reviewed, female enrollment significantly outnumbered male enrollment in this category. The consistently higher number of females enrolled in Cosmetology programs over the past three years on the secondary level may be related to the tradition of employing women in these occupations.

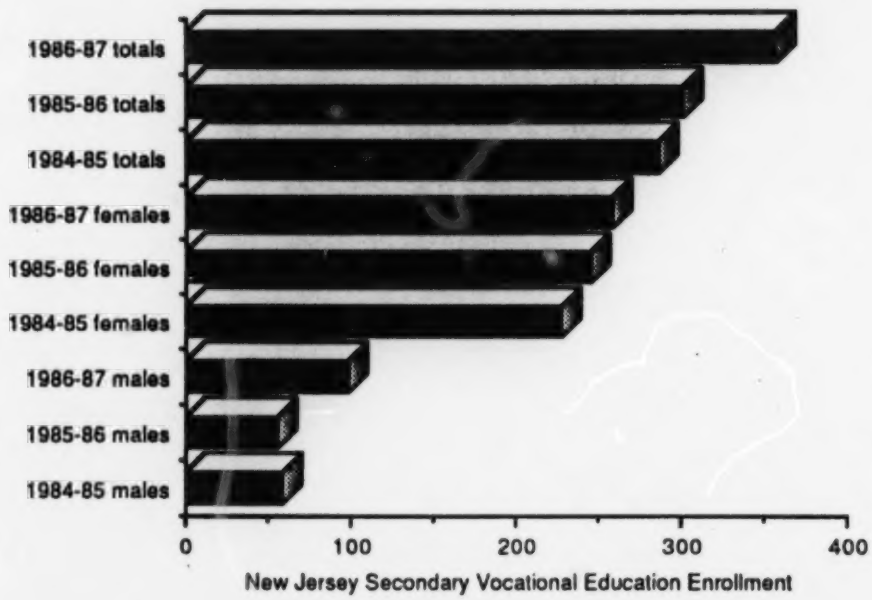
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 1,020 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 1,662 Cosmetology trainee completers for the 1986-87 program year. The occupational positions included are: barbers, hairdressers, manicurists, and shampooers. Predicted job openings fall short of the number of current trainee completers for these occupations.

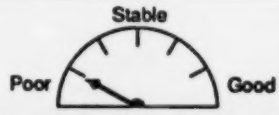
DATA ENTRY KEYER

Data Entry Keyer programs train individuals to operate a keyboard to type data from documents into the computer system.



The secondary enrollment in Vocational Education Data Entry Keyer programs increased for females from 1984-85 to 1986-87. The male enrollment slightly decreased from 1984-85 to 1985-86 and significantly increased from 1985-86 to 1986-87. In each of the three years reviewed, female enrollment significantly outnumbered male enrollment in this category. The consistently higher number of females enrolled in Data Entry Keyer programs over the past three years on the secondary level may be related to the tradition of employing women in this occupation.

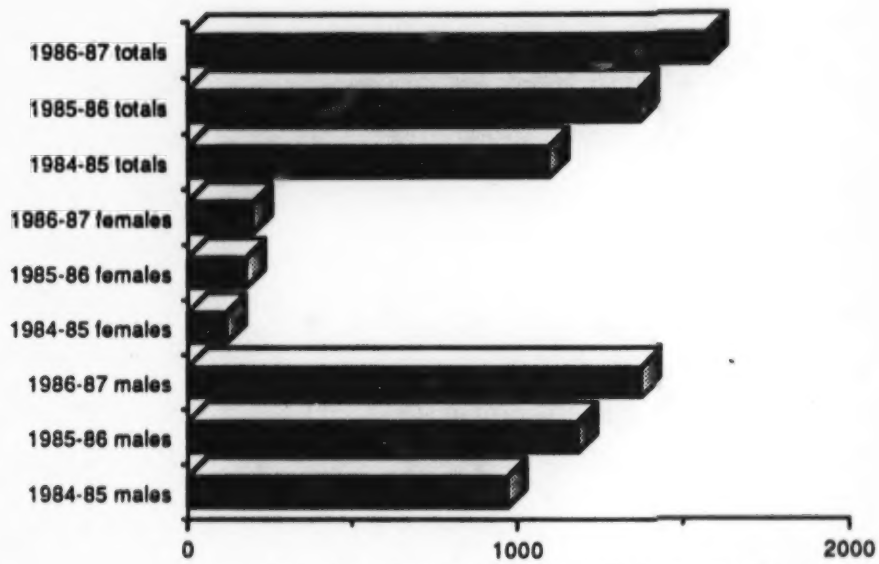
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 70 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 1,046 Data Entry Keyer trainee completers for the 1986-87 program year. Predicted job openings fall short of the number of current trainee completers for this occupation.

DRAFTING AND DESIGN

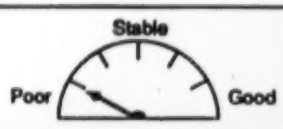
Drafting and Design programs prepare individuals to design detailed drawings from engineering sketches and specifications for use as guides in manufacturing and construction. The Vocational Education programs in this category are: agricultural design and construction, drafting and design technology, mechanical design technology, medical illustrating, architectural drafting, civil/structural drafting, electrical/electronic drafting and mechanical drafting.



New Jersey Secondary Vocational Education Enrollment

The secondary enrollment in Vocational Education Drafting and Design programs substantially increased for males from 1984-85 to 1986-87. The female enrollment slightly increased from 1984-85 through 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in this category. The consistently higher number of males enrolled in Drafting and Design programs over the past three years on the secondary level may be related to the tradition of employing men in these occupations.

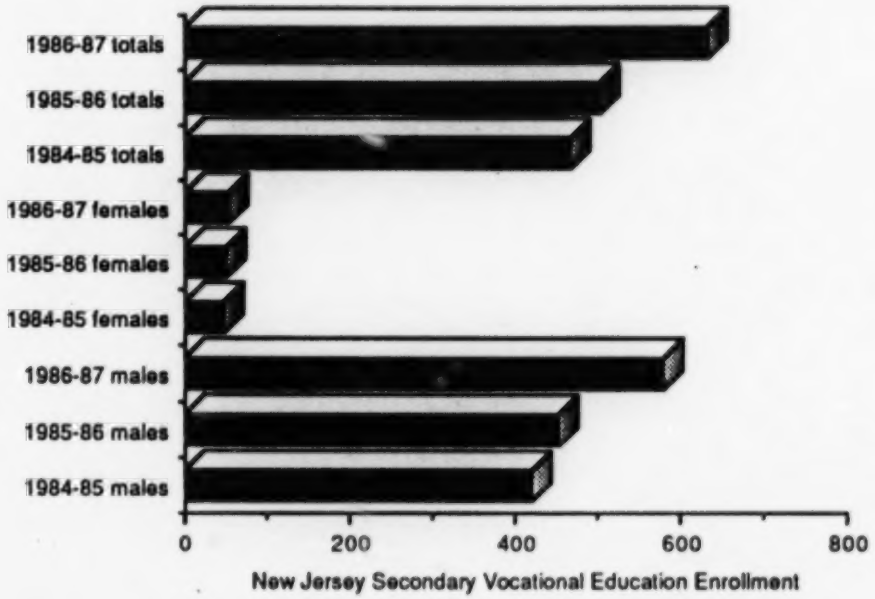
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 749 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 1,558 Drafting and Design trainee completers for the 1986-87 program year for these positions. Predicted job openings fall short of the number of current trainee completers for these occupations.

ELECTRICAL AND ELECTRONIC TECHNOLOGY

Electrical and Electronic Technology programs prepare individuals to apply theoretical knowledge and principles to test, develop, service and build electrical/electronic systems. The Vocational Education programs included in this category are: computer technology, electrical technology, electronic technology, laser electro-optic technology and other related technology.



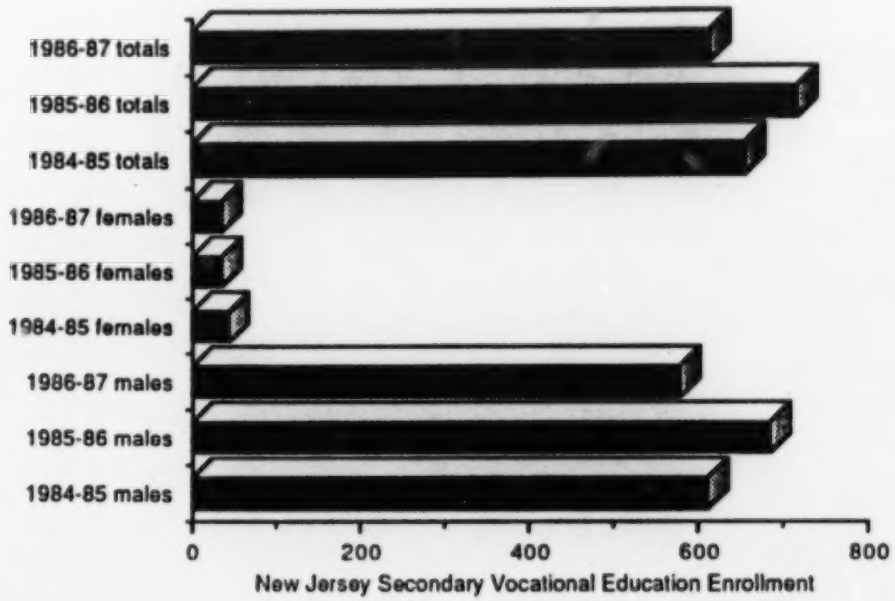
The secondary enrollment in Vocational Education Electrical and Electronic Technology programs steadily increased for males from 1984-85 to 1986-87. The female enrollment also increased slightly from 1984-85 to 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in this category. The consistently higher number of males enrolled in Electrical and Electronic Technology programs over the past three years may be related to the tradition of employing males in these occupations

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 741 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 1,549 Electrical and Electronic Technology trainee completers for the 1986-87 program year. The occupational positions included are: electrical and electronic technicians and all other engineering technicians. Predicted job openings fall short of the number of current trainees for these occupations.

ELECTRICAL EQUIPMENT REPAIR

Electrical Equipment Repair programs prepare individuals to repair, adjust and maintain electrical systems, wiring and equipment. The Vocational Education programs included in this category are: electrical equipment maintenance, major appliance repair, motor repair, small appliance repair and vending machine repair.



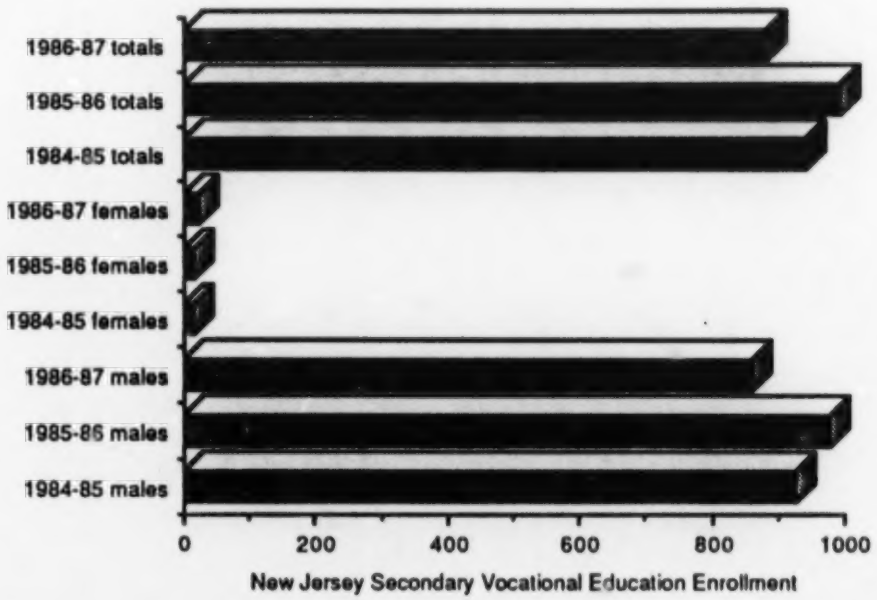
The secondary enrollment in Vocational Education Electrical Equipment Repair programs increased for males from 1984-85 to 1985-86 and decreased from 1985-86 to 1986-87. The female enrollment decreased from 1984-85 to 1985-86 and remained stable from 1985-86 to 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in this category. The consistently higher number of males enrolled in Electrical Equipment Repair programs over the past three years on the secondary level may be related to the tradition of employing men in this occupation.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 408 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 893 Electrical Equipment Repair trainee completers for the 1986-87 program year. The occupational positions included are: machinery maintenance mechanics, electric home appliance and power tool repairers, electric motor and transformer repairers, gas appliance repairers, coin and vending machine servicers and installers, and all other mechanics. Predicted job openings fall short of the number of current trainee completers for these occupations.

ELECTRICIAN

Electrician programs prepare individuals to assemble, install, maintain and repair electrical systems and fixtures. The Vocational Education programs included in this category are: electric and power transmission, electrician and lineworker.



New Jersey Secondary Vocational Education Enrollment

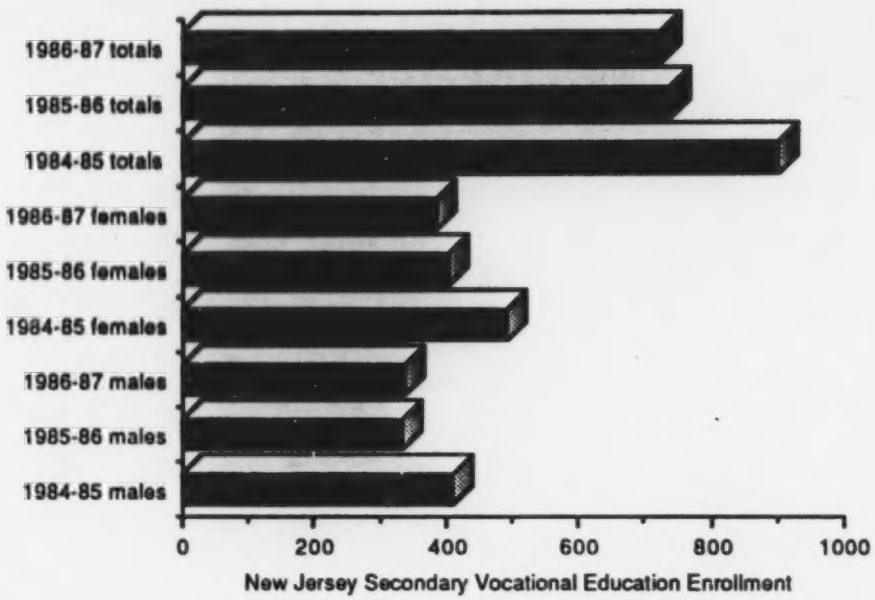
The secondary enrollment in Vocational Education Electrician programs increased for males from 1984-85 to 1985-86 and decreased from 1985-86 to 1986-87. The female enrollment remained stable from 1984-85 to 1985-86 and increased from 1985-86 to 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in this category. The consistently higher number of males enrolled in Electrician programs over the past three years on the secondary level may be related to the tradition of employing men in this occupation.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for the 1986-87 show that approximately 1,310 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 1,340 Electrician trainee completers for the 1986-87 program year. The occupational positions included are: telephone and cable TV line installers, electrical powerline installers, electric meter installers and repair, electricians and electric and powerline transmission helpers. Predicted job openings fall slightly short of the number of current trainee completers for these occupations.

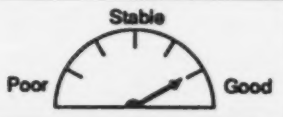
FOOD MARKETING

Food Marketing programs prepare individuals for occupation in food store management, retail and wholesale food sales and other related services. The Vocational Education programs included in this category are: food marketing, convenience store marketing and supermarket marketing.



The secondary enrollment in Vocational Education Food Marketing programs decreased for females from 1984-85 to 1986-87. The male enrollment decreased from 1984-85 to 1985-86 and remained stable from 1985-86 to 1986-87. In each of the three years reviewed, female enrollment outnumbered male enrollment in this category.

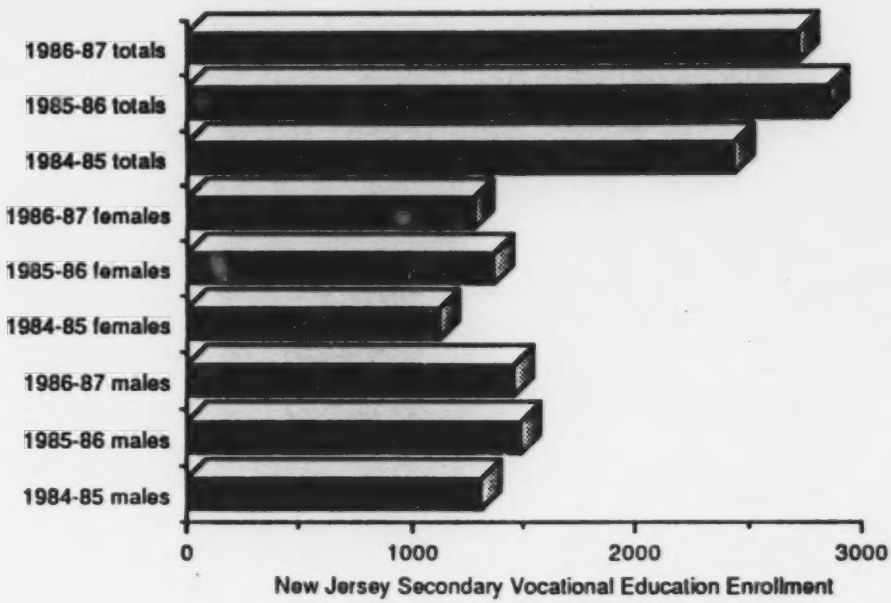
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 4,255 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 509 Food Marketing trainee completers for the 1986-87 program year. The occupational positions included are: first line supervisors and managers, sales representatives, retail salespersons, stock clerks and cashiers. Predicted job openings exceed the number of current trainee completers for these occupations.

FOOD SERVICE

Food Service programs prepare individuals for food related occupations in restaurants, hotels, schools or other establishments. The Vocational Education programs included in this category are: restaurant management, bartending, other entertainment services, general food production, baking, chef/cook, food catering, food service and school food service.



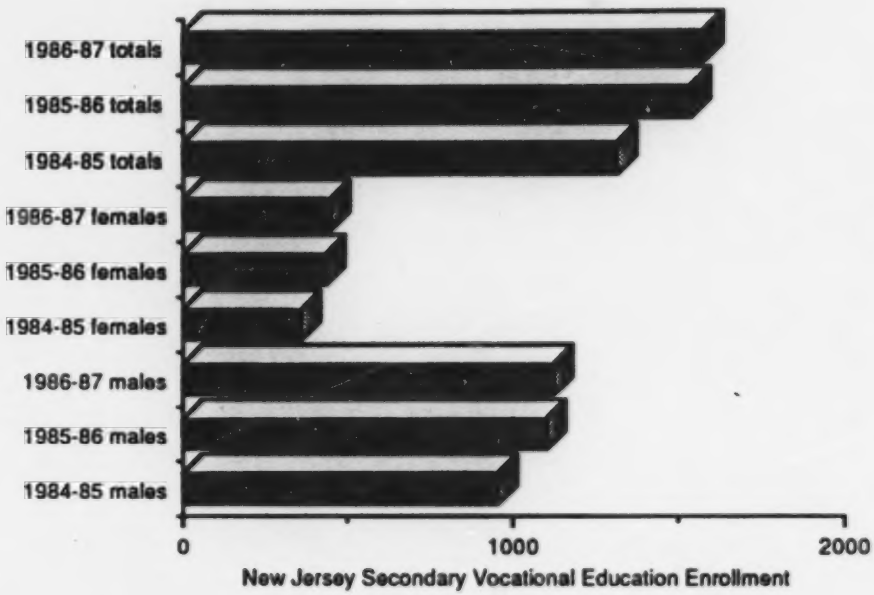
The secondary enrollment in Vocational Education Food Service programs increased for both males and females for 1984-85 to 1985-86. The 1986-87 figures show a slight decline in enrollment for males, but a more significant decline for females. In each of the three years reviewed, male enrollment slightly outnumbered female enrollment in this category.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 8,639 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 2,608 Food Service trainee completers for the 1986-87 program year. Some of the occupational positions included are: food service and lodging managers, bread and pastry bakers, restaurant cooks, short order cooks, and food preparation and service workers. Predicted job openings exceed the number of current trainee completers for these occupations.

GRAPHIC ARTS

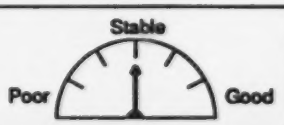
Graphic Arts programs prepare individuals to produce copies and designs by transferring ink or pigment to paper or other materials. The Vocational Education programs included in this category are: graphic and printing communication, composition, lithography and platemaking, printing press operation, silk screening and printing, design, graphic design, and graphic arts technology.



New Jersey Secondary Vocational Education Enrollment

The secondary enrollment in Vocational Education Graphic Arts programs increased for both males and females from 1984-85 to 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in this category. The consistently higher number of males enrolled in the Graphic Arts programs over the past three years on the secondary level may be related to the tradition of employing men in this occupation.

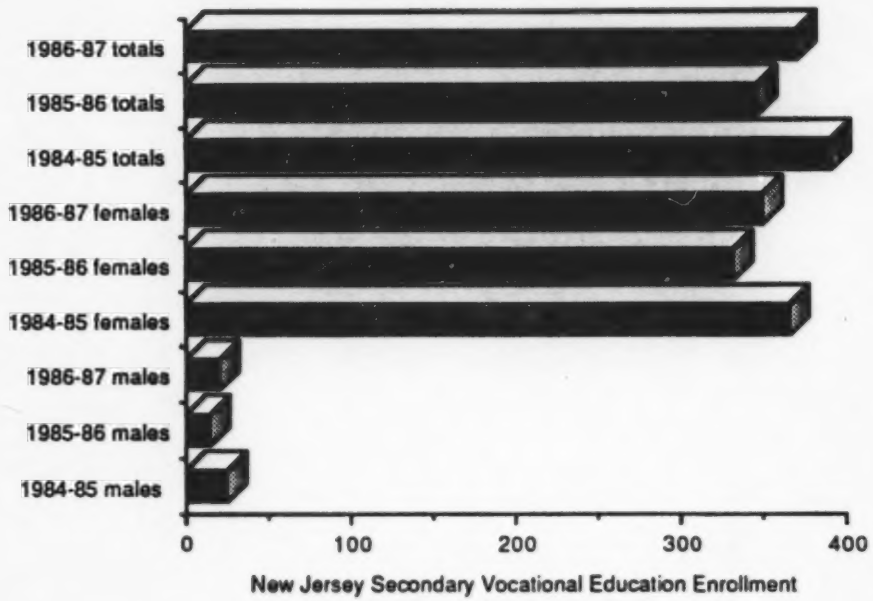
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 1,192 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 1,193 Graphic Arts trainee completers for the 1986-87 program year. Some of the occupational positions included are: compositors, typesetters and arrangers, job printers, lithograph and photoengraving workers, printing press setters, and all other bindery and related printing. Predicted job openings are keeping pace with the number of trainee completers for these occupations.

HEALTH AIDE

Health Aide programs prepare individuals to assist health care professionals in the care of the physically ill and infirm. The Vocational Education programs included in this category are: home health aide, geriatric aide, nursing assisting and pediatric aide.



New Jersey Secondary Vocational Education Enrollment

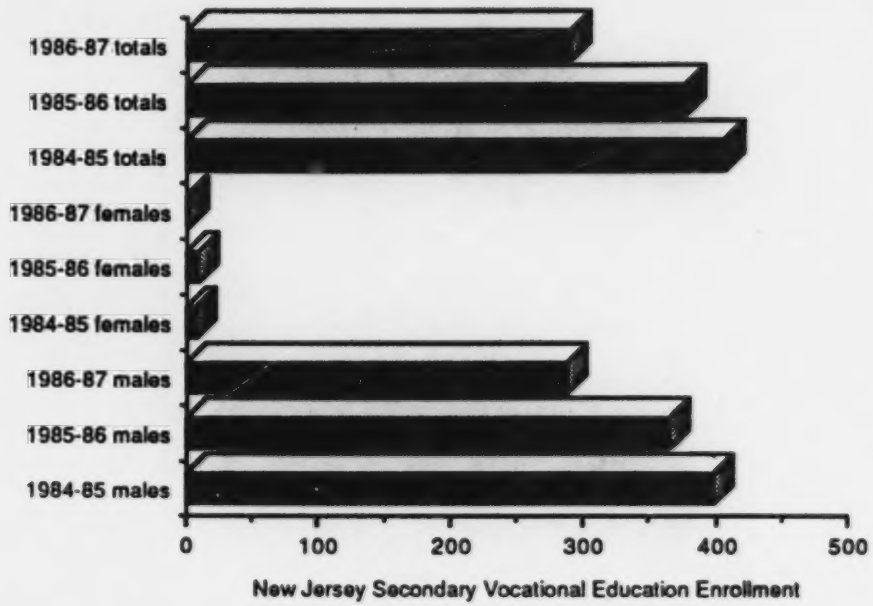
The secondary enrollment in Vocational Education Health Aide programs decreased from 1984-85 to 1985-86 and increased from 1985-86 to 1986-87 for both females and males. In each of the three years reviewed, female enrollment significantly outnumbered male enrollment in this category. The consistently higher number of females enrolled in Health Aide programs over the past three years on the secondary level may be related to the tradition of employing women in these occupations.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 1,970 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 638 Health Aide trainee completers for the 1986-87 program year. The occupational positions included are: nursing aides, orderlies and attendants, and home health aides. Predicted job openings exceed the number of current trainee completers for these occupations.

HEATING AND COOLING MECHANICS

Heating and Cooling Mechanics programs prepare individuals to use a variety of tools to install, service and repair heating and air conditioning systems. The Vocational Education programs included in this category are: air conditioning, heating and refrigeration.



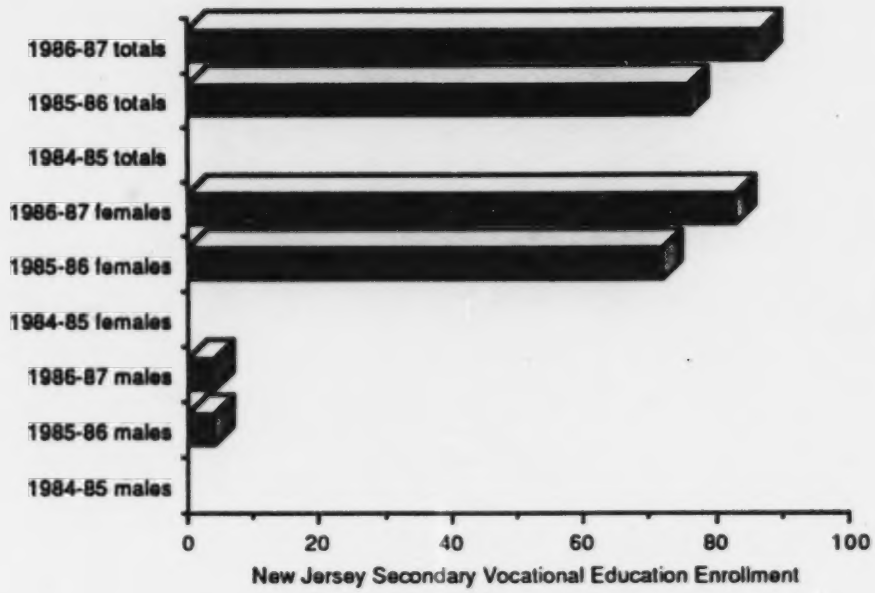
The secondary enrollment in Vocational Education Heating and Cooling Mechanics programs decreased for males from 1984-85 to 1986-87. The female enrollment slightly increased from 1984-85 to 1985-86 and substantially decreased from 1985-86 to 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in this category. The consistently higher number of males in Heating and Cooling Mechanics programs over the past three years may be related to the tradition of employing males in these occupations.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show approximately 410 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 728 Heating and Cooling Mechanics trainee completers for the 1986-87 program year. The occupational positions included are: heating, air conditioning and refrigeration mechanics. Predicted job openings fall short of the number of current trainee completers for these occupations.

LICENSED PRACTICAL NURSE

Licensed Practical Nurse programs prepare individuals to care for the physically ill and infirm under the supervision of registered nurses and physicians.



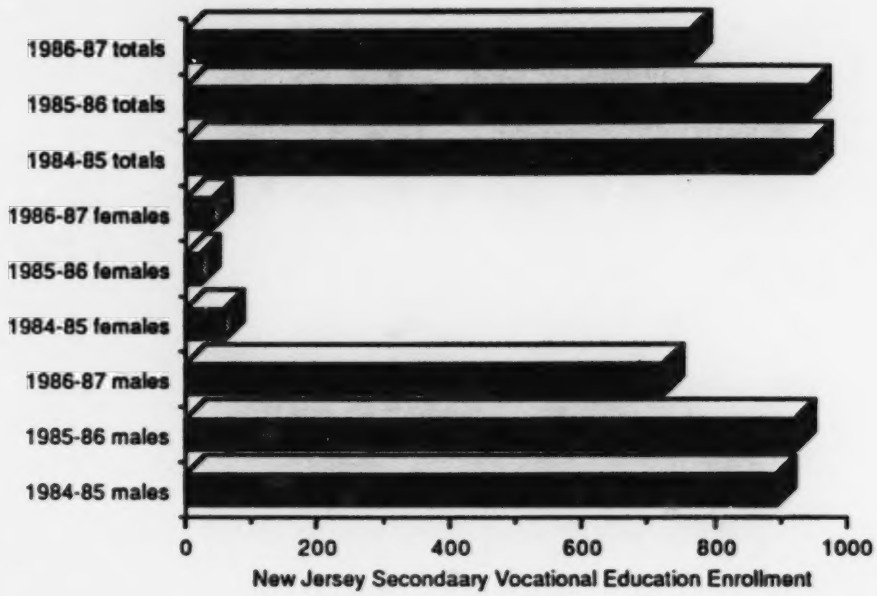
The secondary enrollment in Vocational Education Licensed Practical Nurse programs began in the 1985-86 program year. Female enrollment increased from 1985-86 to 1986-87 while male enrollment remained stable. In each of the two years reviewed, female enrollment significantly outnumbered male enrollment in this category. The consistently higher number of females enrolled in Licensed Practical Nurse programs over the past two years on the secondary level may be related to the tradition of employing women in this occupation.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 900 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 620 Licensed Practical Nurse trainee completers for its 1986-87 program year. Predicted job openings exceed the number of current trainee completers for these occupations.

MACHINIST

Machinist programs prepare individuals to produce precision metal parts for industrial machinery, instruments, aircraft and other goods. The Vocational Education programs included in this category are: precision metal work, machine tool operation and tool and die making.



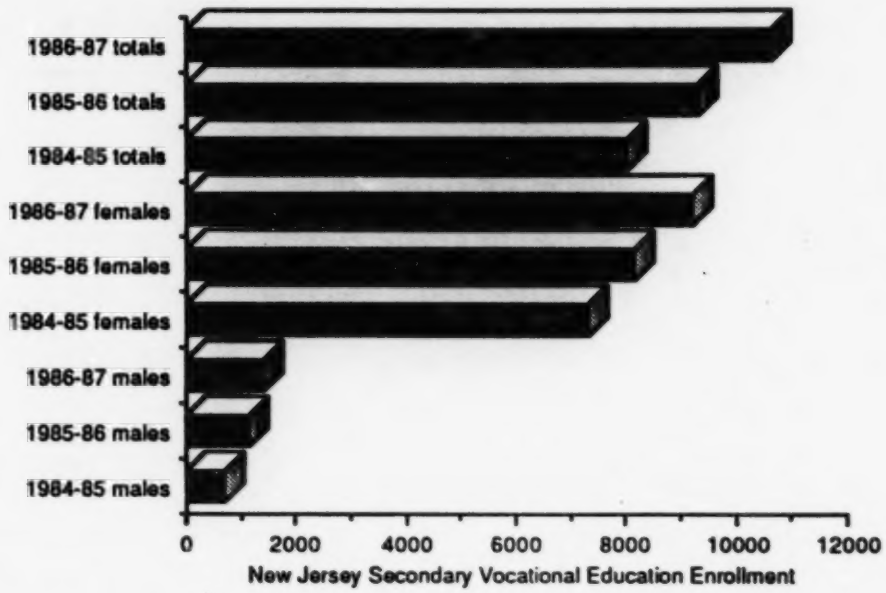
The secondary enrollment in Vocational Education Machinist programs increased for males from 1984-85 to 1985-86 and decreased significantly from 1985-86 to 1986-87. The female enrollment decreased from 1984-85 to 1985-86 and increased from 1985-86 to 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in this category. The consistently higher number of males enrolled in Machinist programs over the past three years may be related to the tradition of employing males in these occupations.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 2,778 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 757 trainee completers for the 1986-87 program year. Some of the occupational positions included are: tool and die makers, precision instrument makers, machinists, tool grinders, filers, sharpeners and combination machine tool operators and tenders. Predicted job openings exceed the number of current trainee completers for these occupations.

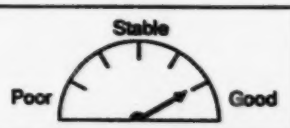
OFFICE OCCUPATIONS

Office Occupations programs prepare individuals to perform secretarial and clerical office duties for the maintenance of organizational efficiency, to take shorthand by stenotype machine or hand and to transcribe on a typewriter or word processor. Some of the Vocational Education programs included in this category are secretarial and related programs, stenography, word processing, typing and general office clerical work.



The secondary enrollment in Vocational Education Office Occupations programs increased for females and males from 1984-85 to 1985-86. In each of the three years reviewed, female enrollment significantly outnumbered male enrollment in this category. The consistently higher number of females enrolled in Office Occupations programs over the past three years on the secondary level may be related to the tradition of employing women in these occupations.

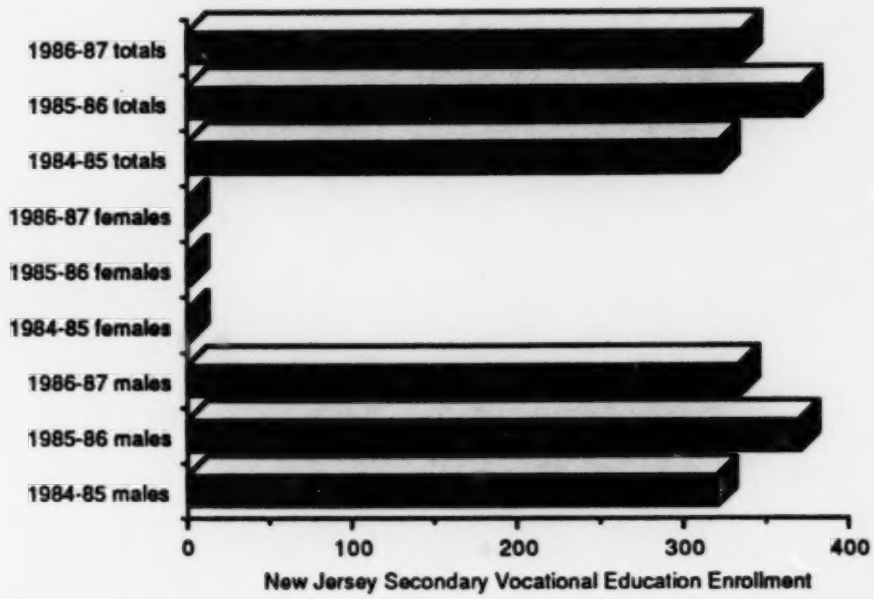
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 16, 967 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 15,438 Office Occupations trainee completers for the 1986-87 program year.The occupational positions included are: secretaries, stenographers, clerks, typists, word processing typists and office machine operators. Predicted job openings exceed the number of current trainee completers for these occupations.

PLUMBING

Plumbing programs prepare individuals to assemble, install, and repair pipes, fittings and fixtures for heating, water, drainage and gas systems. The Vocational Education programs included in this category are: plumbing, pipefitting and steamfitting.



New Jersey Secondary Vocational Education Enrollment

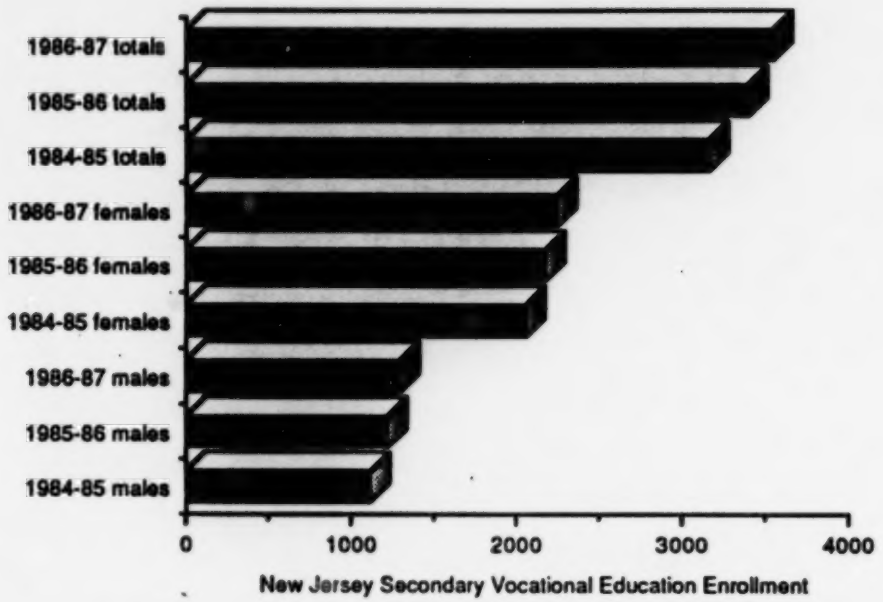
The secondary enrollment in Vocational Education Plumbing programs increased for males from 1984-85 to 1985-86 and decreased from 1985-86 to 1986-87. Female enrollment increased from 1984-85 to 1985-86 and decreased from 1985-86 to 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in the category. The consistently higher number of males enrolled in Plumbing programs over the past three years on the secondary level may be related to the tradition of employing men in this occupation.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show approximately 730 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 417 Plumbing trainee completers for the 1986-87 program year. The occupational positions included are: plumbing, pipefitters, steamfitters, pipelaying fitters, sewer pipe and septic tank servicers, and plumbing helpers. Predicted job openings exceed the number of current trainee completers for this occupation.

SALES AND PURCHASING, GENERAL

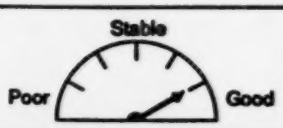
Sales and Purchasing,General programs prepare individuals to purchase, wholesale and distribute merchandise to retail buyers and stores selling directly to the consumer. Some of the Vocational Education programs included in this category are: marketing management, marketing research, display, industrial sales, international marketing, purchasing, retailing, sales and wholesaling.



New Jersey Secondary Vocational Education Enrollment

The secondary enrollment in General Sales and Purchasing increased for both males and females from 1984-85 to 1986-87. In each of the three years reviewed, female enrollment significantly outnumbered male enrollment in this category. The consistently higher number of females enrolled in General Sales and Purchasing programs over the past three years on the secondary level may be related to the tradition of employing females in these occupations.

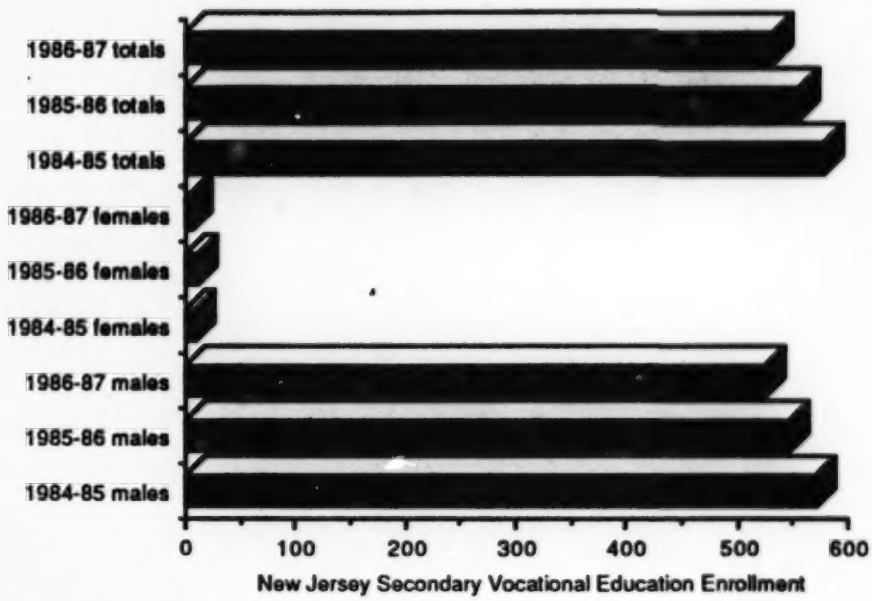
Job Outlook



New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 7,190 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 3,012 General Sales and Purchasing trainee completers for the program year 1986-87. The occupational positions included are: purchasing managers, agents and buyers, merchandise displayers and window trimmers, sales representatives, vendors, solicitors and related workers, demonstrators, promoters and models, and all other sales and related workers. Predicted job openings exceed the number of current trainee completers for these occupations.

WELDING

Welding programs prepare individuals to weld metal parts together using gas or arc welding equipment to construct or repair products. The Vocational Education programs included in this category are: welding technology, welding, brazing and soldering.



The secondary enrollment in Vocational Education Welding programs decreased for males from 1984-85 to 1986-87. The female enrollment slightly increased from 1984-85 to 1985-86 and then slightly decreased from 1985-86 to 1986-87. In each of the three years reviewed, male enrollment significantly outnumbered female enrollment in this category. The consistently higher number of males enrolled in Welding programs over the past three years on the secondary level may be related to the tradition of employing men in this occupation.

Job Outlook

New Jersey Occupational Information Coordinating Committee statistics on average annual job openings for 1986-87 show that approximately 500 positions are available each year in this category. These same statistics, including secondary, college and private vocational schools, also show a total of 904 Welding trainee completers for the 1986-87 program year. The occupational positions included are: welding machine setters, set-up operators and tenders, soldering and brazing machine setters and operators, welders and cutters, solders and brazers. Predicted job openings fall short of the number of current trainee completers for these occupations.

Summary

The 1984-87 Vocational Education enrollment figures in this report do not show any significant trends towards increasing the number of women training in traditionally male fields or *vice versa*. Changes are evident in a number of program areas which may indicate an increasingly positive outlook for more equitable training opportunities. It is important to highlight those areas where nontraditional enrollment has occurred without ignoring the occupational areas where change is still needed.

The job outlook should be a key factor in determining vocational programs for women. Only on that basis can women be encouraged to participate in preparation for nontraditional employment. All students should be encouraged to explore and enroll in those training programs which offer the best employment prospects.

Fields with the greatest predicted job openings in relationship to trainees, based on New Jersey Occupational Information Coordinating Committee statistics include:

- Bank Clerk
- Bookkeeping and Accounting
- Building Maintenance
- Clothing Manufacturing
- Food Marketing
- Food Service
- General Sales and Purchasing
- Health Aide
- Licensed Practical Nurse
- Machinist
- Office Occupations
- Plumbing

Jobs in which the number of projected openings slightly exceed or are equal to the number of trainees:

- Cabinetmaking and Furniture Making
- Commercial Art
- Graphic Arts

Programs in which trainees exceed job market demands:

- Automotive Body Repair
- Auto and Engine Mechanics
- Carpentry
- Child Care Worker
- Computer Operator
- Computer Programming
- Cosmetology
- Data Entry Keyer
- Drafting and Design
- Electrical and Electronic Technology
- Electrical Equipment Repair
- Electrician
- Heating and Cooling Mechanics

- Welding

Categories that traditionally employ either males or females show little change toward nontraditional enrollment. Females have traditionally held positions which become available to them when they are trained in the following areas:

- Bank Clerk
- Child Care Worker
- Clothing Manufacturing
- Computer Operator
- Computer Programming
- Cosmetology
- Health Aide
- Licensed Practical Nurse
- Office Occupations
- General Sales and Purchasing

Female enrollment in these vocational programs significantly outnumbers total male enrollment .

Female enrollment and male enrollment are equal in the following programs:

- Commercial Art
- Food Marketing
- Food Service

Male enrollment significantly outnumbers female enrollment in the other vocational programs analyzed.

Female enrollment is increasing rapidly in the following programs:

- Bookkeeping and Accounting
- Child Care Worker
- Data Entry Keyer
- Licensed Practical Nurse
- Office Occupations

In the remaining occupational areas, female enrollment has remained relatively stable. Overall, female enrollment in training programs is increasing more rapidly than male enrollment.

As evidenced by vocational education program enrollment figures, **strong stereotypes** still exist in most technical fields. Vocational educators can be effective in breaking down these stereotypes by making **all** students aware of **all** available opportunities for career exploration. One of the vocational educator's major responsibilities is the removal of any barrier which prevents the realization of individual potential.